

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## Unit 2 Practice Test

What is a function?

Identify the independent and dependent variables in the situation. Then find a reasonable domain and range.

**Situation:** A museum charges \$10 for admission. In two hours they will have between 100 and 200 people enter the museum.

**Independent Variable:**

**Dependent Variable:**

**Domain:**

**Range:**

The relationships in the tables below are functions. Define your variables and write a function rule to describe the relationship. Finish the table.

Number of weeks	Total Savings
1	\$45
2	\$75
3	\$105
4	

Define:

Function Rule:

The relationships in the tables below are functions. Define your variables and write a function rule to describe the relationship. Finish the table.

x	y
1	6
2	8
3	10
4	12

Function Rule:

Between what two consecutive integers is each square root? **NO CALCULATOR!**

$\sqrt{17}$	$\sqrt{291}$	$\sqrt{61}$
$\sqrt{55}$	$\sqrt{72}$	$\sqrt{150}$

Simplify each square root. **NO CALCULATOR!**

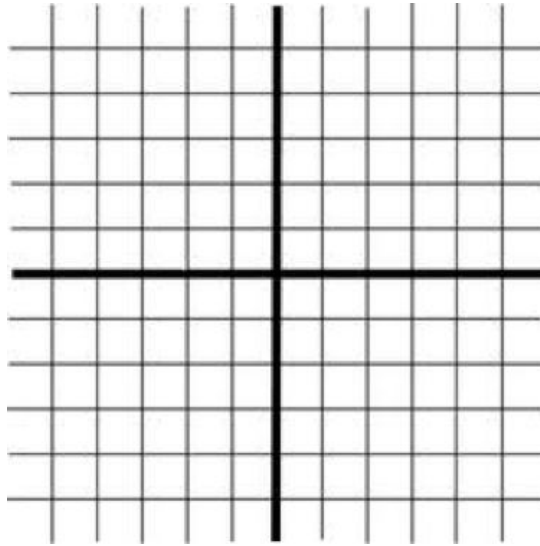
$\sqrt{121}$	$-\sqrt{49}$	$\sqrt{\frac{36}{81}}$
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Simplify each square root. Round your answer to the nearest hundredth.

$\sqrt{51}$	$\sqrt{-16}$	$\sqrt{6,954}$
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Plot the following points on the coordinate plane.

**A (-1, -2) B (5, 3)**



Calculate the distance.

a. Label

b. Copy

c. Substitute

d. Answer

Describe the Pythagorean theorem. Write in complete sentences.

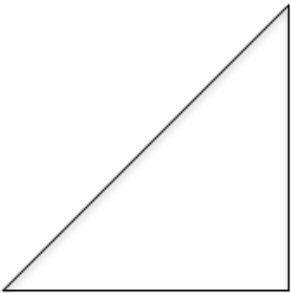
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A triangle has side lengths 5 in, 15 in, and 10 in. Is this a right triangle?	A triangle has side lengths 5ft, 13 ft, and 12 ft. Is it a right triangle?
Find the length of the missing side.	Find the length of the missing side.
	

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Use the Pythagorean theorem to solve the following situation.

**Situation.** A fire truck parks next to a building so that the base of the ladder is 16 feet from the building. The fire truck extends its ladder 30 ft in the air to the tallest window. How high is the window?

*Step 1: known/unknown*

*Step 2: draw and label*

*Step 3: solve*

*Step 4: write your answer as a sentence*